



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10734,914  | 12/12/2003  | Hiroshi Yamada       | 788_120             | 2430             |
| 25 (91)  | 7590        | 05/12/2005           | EXAMINER            |                  |
| Burr & Brown<br>PO BOX 7068<br>SYRACUSE, NY 13261-7068 |             |                      | HRUSKOCI, PETER A   |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 1724                |                  |
| DATE MAILED: 05/12/2005                                |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                   |               |  |
|------------------------------|-------------------|---------------|--|
| <b>Office Action Summary</b> | Application No.   | Applicant(s)  |  |
|                              | 10/734,914        | YAMADA ET AL. |  |
|                              | Examiner          | Art Unit      |  |
|                              | Peter A. Hruskoci | 1724          |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

*KL*

Art Unit: 1724

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 4 "such as" is vague and indefinite because it is unclear how this term further limits the claim.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gibson 5,853,596 in view of Fong et al. 4,238,330. Gibson disclose (see col. 1 line 56 through col. 4 line 59) an oil-containing waste water substantially as claimed. The claims differ from Gibson by reciting the addition of a specific cationic flocculant. Fong et al. disclose (see col. 1 line 5 through col. 2 line 65) that it is known in the art to utilize the recited cationic polymer to aid in separation of oil from an oil in water emulsion. It would have been obvious to one skilled in the art to modify the method of Gibson by addition of the recited cationic polymer in view of the teachings of Fong et al., to aid in separating oil from the waste water. The specific pH, temperature, and concentration utilized, would have been an obvious matter of process optimization to one skilled in the art, depending on the specific waste water treated and results desired, absent a sufficient showing of unexpected results.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gibson 5,853,596 in view of Fong et al. 4,238,330 as above, and further in view of Lahti 5,807,487. The claims differ from the references as applied above by reciting that the method includes specific

Art Unit: 1724

steps for adding a neutralizer, and filtering the waste water. Lahti disclose (see col. 3 line 11 through col. 6 line 36) that it is known in the art to utilize the recited steps for adding a neutralizer and filtering solids, to aid in treating a waste water containing oil. It would have been obvious to one skilled in the art to modify the references as applied above by utilizing the recited neutralizing and filtering steps in view of the teachings of Lahti, to aid in adjusting the pH of the waste water, and in removing solids from the waste water, respectively.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gibson 5,853,596 in view of Fong et al. 4,238,330 as above, and further in view of Mohn. The claim differs from the references as applied above by reciting that the pH value of the waste water is adjusted with sodium metasilicate. Mohn disclose (see col. 1 line 65 through col. 6 line 42) that it is known in the art to utilize sodium silicate, to increase the pH and aid in the coagulation of oily wastewaters. It would have been obvious to one skilled in the art to modify the references as applied above by utilizing the recited sodium metasilicate in view of the teachings of Mohn, to aid in adjusting the pH and removing oil from the waste water.

Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter A. Hruskoci whose telephone number is (571) 272-1160. The examiner can normally be reached on Monday through Friday from 6:30AM-4:00PM.

Art Unit: 1724

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Peter A. Hruskoci  
Primary Examiner  
Art Unit 1724

5/11/05